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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/658,925
Filing Date: September 10, 2003
Appellant(s): KARANIKOS ET AL.

Wolf, Greenfield & Sacks, P.C.
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 7/1/2008 appealing from the Office action mailed 1/30/2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,325,765	SYLVAN ET AL	7-1994
3,971,305	DASWICK	7-1976

3,389,650	MICHIELSEN	6-1968
2002/0185010	SPITERI	12-2002

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-4,7,12-14,17,22-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sylvan et al patent 5,325,765 (Sylvan) in view of Spiteri PGPUBS Document US2002/0185010.

Regarding independent claims 1,12 and 44, Sylvan discloses a coffee filter including a filter cartridge comprising a brew basket container with bottom and side walls in portion 64 extending upwards to a closing cover 62 having top opening 72 (column 4, lines 16-27). The cartridge houses filter element 16 with bottom 56 and sloping side walls 50 and 52 (column 3, lines 54-60), the filter element being ***joined directly at a peripheral junction 24 with the adjacent interior wall surface of the cartridge housing (see column 3, lines 48-62 and figure 4).*** The filter element is of synthetic paper fibers such as of polypropylene. The interior of the filter cartridge is thus divided into a first chamber housing beverage 22 and second chamber 42 receiving outflow from the filter (column 3, line 66-column 4, line 3).

The filter of Sylvan is characterized as being intended or designed for disposal after a single use, and being totally self-supporting and resistant to sagging and collapse against the cartridge container walls when wetted, rigid, and particularly designed for preparing coffee beverages (column 3, lines 2-4 and 10-15).

The claims all differ in requiring the filter element to be fluted, hence pleated or corrugated. However, Spiteri teaches a disposable paper, fibrous, coffee filter element that is also disposable, free-standing, rigid and self-supporting (paragraphs 1 and 5-7), and has side walls which are fluted or pleated (see figures and paragraphs 9 and 11). The Spiteri filter, being fan-shaped, is also similarly shaped to that of Sylvan.

It would have been obvious to one of ordinary skill in the art to have modified the coffee filter device of Sylvan by utilizing a pleated or fluted filter, as taught by Spiteri, in order to further augment the self-supporting aspect of the filter. It would have also been expedient to manufacture the filter element of Sylvan with the pleats/flutes of Spiteri to facilitate handling and packing/packaging, cost-effective production, and provide stiffness so as to ensure sufficient rigidity to avoid collapse or sagging when wetted, as explained at paragraphs 6 and particularly 7 of Sylvan.

Regarding motivation to form the filter of Sylvan to have pleats or flutes so as to avoid sagging of the filter, a primary concern of Sylvan was to avoid sagging of a coffee filter when wetted and full of grounds. Sylvan stated in column 1, lines 25-38 that sagging of such filter against the support member walls of the brew basket would largely block the filtration flow or output of such filter and allow only the bottom of the filter member to be used for filtration flow. At column 2, lines 3-7, he states that avoidance of such sagging would enable the filter to maintain a substantial volume available for enhanced filter flow through. Spiteri also addresses the issue and states the desirability of preventing the walls of a coffee filter from sagging when wetted (paragraphs 5,6 and 8). Thus the avoidance of sagging would desirably increase the effective filtering area and area available for filtration flow, flow of filtered coffee.

Regarding various dependent claims, Sylvan also discloses features of the filter side wall and bottom walls, Sylvan also discloses features of brew basket container and side wall being parallel to container side and bottom wall respectively, height of filter side wall being between 50 and 100% of height of filter cartridge, cartridge and cover having impermeable walls and being frustoconical, upper rim 18 of the cartridge and top and bottom piercing means (70 and 74); all generally clearly illustrated in the figures.

Regarding claims 3,4,32 and 33, Spiteri teaches the filter side wall having pleats or flutes 32 functioning as filtrate exit channels (figures); flutes are considered a form of pleats or corrugations.

2. Claims 3,5,6,9-11,15-16,19-21 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sylvan et al patent 5,325,765 in view of Spiteri, as applied to claims 1 and 12 and further in view of Daswick, U.S. 3,971,305.

Regarding Claims 5,6,15 and 16, Daswick discloses or suggests that the filter extends downward and away from the container at an angle of less than about 1 degree (see figure 5 and see Col. 4, Lines 1-4). It would have been obvious to one of ordinary skill in the art to modify Sylvan in view of Spiteri with the element of Daswick in order to provide portions spaced outwardly from the filter to allow flow freely outside the filter (Col. 4, Lines 1-5).

Regarding Claims 9-11 and 19-21, Sylvan in view of Spiteri does not disclose lower permeability and increased thickness in the lower region of the filter element. Daswick teaches a beverage filter cartridge wherein reduced permeability is achieved by increasing the thickness by lining the lower region of the filter element with an insert (Fig. 2, #28) of like filter material. It would have been obvious to one of ordinary skill in the art to modify Sylvan in view of Spiteri with the element of Daswick in order to retain the beverage media or coffee grounds within the filter (Daswick Col. 3, Lines 11-15).

3. Claims 8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sylvan et al patent 5,325,765 in view of Spiteri, as applied to claims 1 and 12, and further in view of Michielsen, U.S. Patent No. 3,389,650.

Regarding Claims 8 and 18, Sylvan in view of Tanner does not disclose channels increasing in width. Michielsen teaches a beverage filter cartridge comprising exit channels that increase in width to a maximum adjacent the filter bottom (Fig. 1, #2). It would have been obvious to one of ordinary skill in the art to modify Sylvan in view of Spiteri with the element of Michielsen because it is a corrugated structure common in the filter art.

(10) Response to Arguments

It is argued that there was no known function for a fluted/pleated filter in a pressure-type beverage cartridge, as that of Sylvan. The accompanying Declarations state that the skilled artisan would have expected a fluted filter to function improperly in pressurized cartridge brewing. In Declaration II, it is asserted that the fluted filter of Spiteri used in drip-type brewers are not mentioned as having radial rigidity, instead being flexible, and would expand so as to contact the brewing container's sidewalls as pressurized water was injected into the cartridge. Sylvan teaches to avoid such sidewall contact by providing a rigid filter. The argument emphasizes that pressurized brew water would have a greater tendency to flatten the flutes of the Spiteri filter than would non-pressurized introduction of water during drip-brewing.

It is submitted that these assertions are speculative in nature and are not accompanied by any evidence or actual testing or experimentation. Paragraphs 7-9 of Spiteri teach that the fluted design of the filter prevents "sagging of the sidewalls" of his filter while figure 5 of Spiteri shows maintaining of the spacing of the filter sidewalls from brewing container sidewall during brewing or flowing of the water, which is a main objective of Sylvan. Paragraph 9 states that a type of folding is employed which offers extra support and is sagging resistant. Paragraph 11 states that a small amount of additional material is added to achieve such characteristic relative to a "conventional fan shape paper filter to compensate for the pleats and folds". Note that paragraph 21 of Spiteri teach that his filter may be used with "conventional coffee brewer means", with drip brewers being just one such type of conventional brewer means (see "such as an electric drip brewer").

It is argued that there is no identified problem, design need or market pressure that would have provided the skilled artisan with a reason to make the asserted modification. The Argument and Declaration II detail why the Spiteri filter is not self-supporting in any way that makes it suited for use in a Sylvan cartridge. In Sylvan the filter is joined at it's top edge to the brewing cartridge container sidewall so there is no concern with downward sagging of the filter top edge. The argument states that there is concern with avoiding filter sidewall collapse so that it contacts the chamber sidewall in Sylvan but that there is no such concern with Spiteri. This is reasoned as being because the filter in Spiteri is supported by the brew basket bottom instead of being suspended from the basket sidewall. It is stated that sagging is impossible in Sylvan. It is stated that the terms self supporting as used in Spiteri have different meaning than in Sylvan.

It is submitted that Sylvan and Spiteri commonly refer to "self-supporting" as being resistant to sagging against the sidewalls of the brewer container when wetted (paragraphs 7-9 of Spiteri and column 3, lines 10-13 of Sylvan). Although the filters of Sylvan and Spiteri are differently supported or oriented in the brewer container, such support is a property that is unrelated to filter resistance to sagging outwardly against the container sidewall. Sylvan and Spiteri are commonly focused on the industry problem of resisting sagging of the coffee filters when wetted, during brewing.

It is argued that the Office action does not explain how the fluted Spiteri filter would be cheaper and easier to manufacture. The argument and accompanying Declaration II state that the Spiteri filter is more complicated and thus more expensive to manufacture, as the Sylvan cartridge does not require folding, while the filter of Spiteri requires production of several fold lines, crimped ends and weld seams. It is questioned whether ability to fold the Sylvan filter flat would be an advantage. It is emphasized that pleating or fluting of coffee filters as in Spiteri would result in easier packaging of the filters as such folding would enable a larger amount of filters to fit into a package of a given size than filters that could not be folded. Relative difficulties or complexities of manufacturing the coffee filters of Spiteri and Sylvan are largely speculative. Coffee filters in general of any known design represent manufactured articles that are quite simple in design and easy to manufacture relative to other consumer articles such as fuel filters, as emphasized by the short, succinct disclosures of both Spiteri and Sylvan.

It is also argued that the effect of providing flutes or pleats in a coffee filter as in Sylvan to provide increased filter surface area does not necessarily improve the brewing cartridge's ability to make an improved coffee beverage product, since the resulting increased filter area would result in a reduced contact time between brew water and coffee grounds and thus undesirably weaker or lower quality coffee product. This argument is countered by stating that "quality" of coffee product is more a factor of quality or type of coffee grounds than rate of flow passage through the coffee filter. Quality of coffee is not merely a matter of coffee strength, if necessary, many automatic coffee brewing machines offer controls that allow separate selection of strength of coffee to be produced during coffee infusion. Many consumers prefer relatively weak coffee.

Regarding claims 5,6,15 and 16, it is argued that none of the references teach the recited small angle of filter sidewall, less that 1 degree, relative to brewer cartridge sidewall and that Sylvan teaches away from such small angle as that would increase the risk of filter sidewall to container sidewall contact. It is clear by figure 5 and paragraph 25 of Spiteri that the pleated or fluted filter is designed or fitted so that it's side walls are at a relatively small angle relative to the brewing container sidewall.

Regarding claims 9-11 and 19-21, it is argued that Daswick does not correctly teach including a mesh element in the lower region of the filter having a different permeability, as the mesh or web floats above the top surface of the water. The specific gravity of such filter element or insert is not claimed, and these claims do not require that the filter property is present during actual coffee filtering operation.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Joseph Drodge/

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